Electra Myths: Video, Modernism, Postmodernism

By Katherine Dieckmann

Every technology produces, provokes, programs a specific accident.[1]—Paul Virilio

Machination and Modernism

Confronted with the machine-crazed tunnel vision of his Futurist cohorts—particularly Marinetti, who pledged fervently to replace the romantic moon as poetic muse with a new goddess, Electra or electricity—Umberto Boccioni painted his *States of Mind* triptych in 1911 as a corrective to pro-electrical fever. *Those Who Stay, The Farewells,* and *Those Who Go* were Boccioni's titles for three stages of existence in an age of increased speed and a corresponding frenzy in science and art. The first moment in this study of progressive movement, *Those Who Stay,* depicts full figures inclined slightly to the right, ready to take off, but imprisoned in bold vertical bars of paint. *The Farewells* is a quasi-Cubist swirl with semifigurative shapes encircling the broken image of a moving train: an agitation in process. And in *Those Who Go,* the aesthetic of turbulence is realized: the vertical shafts of *Those Who Stay* metamorphose into hyper diagonals; the full figures are now faces, rushing up and practically out of the right side of the frame, as though in too much of a hurry to wait for their bodies to catch up.

Boccioni's triptych represents the sequential movement so crucial to the Futurists in the wake of Muybridge and Lumière; but more important, it attempts to express the emotional or psychical states attached to the first great rush of technological fervor. The triptych provides a metaphor for attitudes to "the new." Perhaps these images seemed reactionary at the time, a longing to "wait a while" and reflect (reflection as nostalgia). Today they are decidedly melancholic, evoking the inauguration of a great machine age whose demise we have by now witnessed and documented. Jean Tinguely's self-destructing machine, *Hommage à New York,* transformed the Museum of Modern Art's polite sculpture garden into a site of Hegelian inverse creation in 1960. Out of annihilation, the effort to hit degree zero, came a brief but intense coalescing of mechanical-luminescent-kinetic interests in art, which burnt themselves out, side by side with the modernism that had prompted them, by the end of the decade. The Museum of Modern Art held a requiem for the theme in 1968—*The Machine as Seen at the End of the Mechanical Age*—which, like Boccioni, bemoaned a loss of innocence. In his foreword to the catalogue for the show, its curator K. G. Pontus Hulten wrote: "the mechanical machine—which can most easily be defined as an imitation of our muscles—is losing its dominating position among the tools of mankind; while electronic and chemical devices—which imitate the processes of the brain and nervous system—are becoming increasingly important."[2]

The machine's unplanned obsolescence and the possibility for nonhuman replication—not just imitation—of cognitive processes coincided with and perhaps encouraged the "closure" of modernism in the late 1960s and early 1970s. The unlikely pair of Pop Art and Minimalism together drove artmaking into a corner of disengagement (one as pose, the other as absence); the heightened kineticism of the sixties has agitated itself into a standstill. Postmodernism arose from the fallout, dragging its forefather along with a prefix that acknowledges an awkward relationship to its past. The sense of contradistinction built into that term points to its chief feature: a willingness to reconceive linear history in favor of a belief in discontinuity. In that reconceiving, the artwork's impermeability and self-containment under modernism could be penetrated by exterior forces—politics, ideology, even other artworks. Art is interpreted as a process of information rather than as a logical development of individual works. Postmodernism challenged conventional art history—its structure of orderly sequences of stylistic action and reaction and its privileging of the object.[3]

The prevailing beliefs of postmodernism are difficult to situate in relation to technology and the myth of progress as it has been phrased under modernism. The case of technology and art lends itself easily to dualisms: reason versus inspiration, logic versus the irrational, the intellect versus passion. The clichés associated with artmaking—that it is an outpouring of the creative, the uncontrolled, the spontaneous, harnessed through form—counter the conventions of the scientific process, which involve formal mastery of a different sort, an attempt to make empirical reality "knowable" through a tidy program of investigation, experimentation, and conclusion. When artists take on the concerns and tools of science, it is supposedly to "humanize" this process.

With regard to technology itself, there is a healthy polemic of pro and con attitudes towards tools, which are assembled by hand but invariably tend

to operate without the need for direct human intervention. On the one hand, there is a Futuro-ecstatic embrace of "the new" (a salient feature of modernism and the grounding for Boccioni's paintings) and, on the other, a quasi-Luddite strain of suspicion, resistance, and skepticism. The latter strain troubled the forward push of modernism. Under postmodernism, a mode of thinking that interrogates binaries in general, the relationship of art and technology is unduly problematic. We can locate this partially in the loss of the machine as a continuous, historically traceable thread in art history, as it gives way to information-based art such as video and computer-generated pieces. After a slew of exhibitions devoted to multimedia in the late sixties and early seventies,[4] large-scale attempts to situate technology's relationship to art practice have been practically nonexistent.

Meanwhile technology advances outside the art world with its characteristic stealth. We cannot *see* these changes. Our hearts beat a little faster, our eyes blink a bit more rapidly, as an unsurpassed period of invention profoundly alters our conventional time-space continuum.[5] Scientific developments, which always pointed towards "the future," tend now to encourage a kind of intensified present. "Instantaneousness" encroaches on daily life in the form of the computer, which gathers random and distant information and absorbs it into a heightened present with the turn of a switch. "Duration," says Paul Virilio in his dialogue with Sylvere Lotringer, *Pure War,* "is the last commodity" (p. 28). The machine art of the sixties, with its naïve utopianism and equally naïve critique of futural faith, is not just obsolete—it's antediluvian. The terms of scientific progress have changed so extremely that positivism is increasingly untenable. The war industry perfects its techniques of delivering an absolute instantaneousness, the nuclear bomb. Time and speed face new pressures as a cultural desire for the instantaneous (exemplified by the omnipresent computer) makes immediacy the key pleasure; it comes as no surprise that nuclear-weapons experts term a megatonnage explosion the "orgasmic whump."[6] We must remember Martin Heidegger's call, made more than twenty years ago, to unmask the *meaning* of technology, which is never "neutral."[7] The art world is not exempt from this task.

The Case of "Electra"

The massive exhibition *Electra: Electricity and Electronics in 20th-Century Art* at the Musée d'Art Moderne de la Ville de Paris in 1984 is crucial to this interrogation of technology. Spanning the entire twentieth century, *Electra* is the first recent large exhibition organized in the spirit of the multimedia shows of fifteen years ago, and it was organized and cosponsored by a large corporation, Electricité de France, which wished to celebrate the 100th anniversary of the founding of the Society of Electrical and Electronic Engineers in an "aesthetic" way, and with a sense of spectacle. Undoubtedly the utility's ample dowry prompted this particular marriage of age-old lover-enemies, art and science. The art congratulates the scientific institution for a job well done. Electrical and electronic motifs throughout modern art history attest to the persistence of progress, legitimizing its value through culture. The investigation into the consequence of development—the Heideggerian inquiry into the *nature* of technology—is deterred by the artworks.

Electra—both the show and its accompanying catalogue, which is now our sole means of experiencing it—has received no attention in the English-language art press: a bizarre case of continental divide in this, the glorious age of telecommunication. Actually, the silence seems fitting considering the show's carefully cloaked isolationist stance. Despite a contemporary focus and an effort, as its curator Frank Popper puts it, to show how works are "situated in relationship to others, especially with regard to present-day debate on Avant Garde, Post-Modernism, and the relations between art, science, technology and society."[8] *Electra* protects its artworks from questioning by allying them to science, characterizing them as specifically modernist tendencies that develop according to an internal logic. Popper (who organized the influential *Kunst-Licht-Kunst* show at the Stedelijk Van Abbe Museum in 1966) states that he and his fellow curators, all of them French, decided that "the exhibition should not offer a didactic, linear path," but work via "a number of distinctive recollections of the recent past" (p. 24). This position seems a nod to the prevailing poststructuralist mood, both within the culture that gave us Derrida, Lacan, and Foucault and within certain branches of art criticism.

Still, it's just that, a nod, for somehow these "recollections" fall into a straightforward progression. There are a few acknowledged aberrations within the field of artistic development; neon, for example, has remained constant in form but varied in its uses from the mid forties to the present. *Electra* charts a model of rational development, a method of reading urged by the extensive chronology that prefaces the book and the unfolding of "movements" in time. The science-related subject matter encroaches on the presentation of the works—well-known Futurist, Constructivist, and machine-art pieces until 1945; lasers, neon, holograms, copy art, kinetic sculpture, and more, post-1945—contorting them into a model of linear succession. Thus *Electra* moves seamlessly from the Bell Telephone (1876), through Raoul Dufy's monumental history-of-the-moment fresco, *La Fée Electricité* (1937) (permanently installed at the Musée and a choice reason for holding *Electra* there), to Disney Production's *Tron* (1982). The serial presentation of "just facts" is then amplified by Popper's lengthy introduction, which is in turn fleshed out by essays on "special subjects" (art and industry, the importance of Japan, music and digitalization, etc.). The *Electra* presentation provides a textbook synposis of inventions and "isms" with which to enclose the current of electricity—of *power*—coursing through modern (and into postmodern) times.

These movements are accounted for without developed references to events like world wars. Even the critical curatorial breakmark of 1945 fails to be explicated as a point where fascination with machine art had to face its connection with war making (where the machine's main function became the production of war). This progressive militarism has reached the crisis point explored in *Pure War.* That such political and economic forces are obfuscated in traditional art history is nothing new. But to unify art and science (science as technology) requires greater attention to socioeconomic and political repercussions. A pixel is not a paintbrush. A monitor, a digital photograph, an electronic score are products of a multinational industry that also manufactures the devices that help man decide whether or not to push the button—or push it for him.[9] These tools exist within a milieu of political-military decision making. *Electra*'s bluntly utopian presentation is a disturbing document of our times—art historical and otherwise. Boccioni's warnings from the beginning of this century remain pertinent. A faith in the forward, in *speed,* sent the heads whirling out of his picture plane in the third part of the *States of Mind* triptych.

Electra History or the Birth of Video

The history of electrical inventions in art can be interpreted as a series of impulses towards the creation of an image-producing tool, towards video. It is useful first to get a sense of the kind of video work exhibited in *Electra,* then go back and look at specific prototypes and historical tendencies that may show how

very reductive the *Electra* video presentation is. The works selected for the video section (most of the tapes are by French artists and relatively unknown in the United States) by Dominique Belloir are, to judge from the program notes, overwhelmingly supportive of the miracles of high technology and the way it may surmount the formal difficulties of more "archaic" forms such as painting, sculpture, and writing. Thus we have Colette Devle's examination of light, line, and "the electronic weave" (the minimalist grid?): "Form is dust of light, a whirlwind of sight, wind-of-colors, windswept memory, and all of this is painting." Or Patrick Bousquet's claim that video is "not merely a medium" but an object, and it is its objecthood that requires the greatest attention. Jean-Paul Fargier makes no bones about his preoccupation with literature as he relates *Finnegans Wake* to electronic production (the catalogue fails to make Fargier's relation to Nam June Paik, the man who made the Joyce-video association famous, clear—although Paik participated in the creation of the tape).[10] Paik himself is notably absent here. Popper devotes a scant paragraph to him in his introduction, stating his importance but noting, without further explanation, that his presence in *Electra* will be "modest" (p. 52). In light of *Electra*'s obsessive devotion to "memories," Paik would seem perfect, conjuring up as he does the ghost of Duchamp and the spirit of collective collaboration in his Fluxus period. But among tapes that seem strongly committed to a glowing embrace of technological tools, Paik's provocateur positions (exemplified by his quirky *TV Buddha,* 1974, and ominously techno-tropical *TV Garden,* 1974–78) would mar a near-uniform tone of positivist production.

With a sense of the kind of work selected for *Electra,* we can now go back and travel along Popper's modernist summation of art movements and relate them to video, filling in the curator's numerous ellipses. In the period from 1900 to 1984, Popper situates three tendencies of electricity in art: inconographic usages (depicting the light bulb or imaging of light but not employing electrical light itself); "energetic" usages (machine art, kineticism); and, finally, the invention of tools able to communicate, diffuse, or generate information and images. Each tendency has a unique history, and there are, of course, moments of cross-pollination and parallel development. What is important here is how varying electrical uses point in some way to the need or desire for the video medium, which incorporates light, electricity, movement, the potential for perception over time, and immediacy.

Fig. 1 "Illumination-as-Nostalgia": Paris, "the city of light" (light spectacle of 1937), from *Electra* catalogue, p. 136.

Popper divides the art of this century into three main periods: 1900–45 marks the years of "positive development" of electrical themes by the Futurists and Constructivists and "ironic" or "irrational" stances by the Dadaists and Surrealists; 1945–70 the time of "medium domination"; and from 1970 to the present the age of "computer and electronic domination." The Futurists founded a cult of the electric in the early decades of the century, championing speed, the forward, and the notion of "progress." Electricity was used imagistically in painting, sculpture, and poetry, but also as a central philosophic tenet: Marinetti nearly called Futurism "Electricism." Popper attends to the obvious Futurist interests in representing motion (particularly in transportation—the automobile and locomotive),[11] but excludes the Futurist absorption with the question of information and its dispersal. The manifestos, the polemical paintings and texts, the overall conviction in a dynamism of *positions,* made the Futurists great publicists of their own ideals. They realized that artworks can dispense ideology—an ideology of speed and rapid transit that ties directly into the highly advanced communications processes of our own age.[12]

In the twenties and thirties the Constructivists shifted electrical usages from merely imagistic to actual. Gabo's revision of Cubist and Futurist attempts to reconceive time and space (his *Construction in Space with Balance on Two Points,* 1925, is a good example) offers both a critique of and an advance on electrical themes to that point. Popper discusses only the Constructivists' elevation of the kinetic and their development of the multimedia performance using light, motion, and spectator involvement (shifts of no small import to video). The works of Tatlin, Gabo, Moholy-Nagy, Lissitzsky, Malevich, and their followers are treated merely with concern for what concrete (physically recognizable) changes in the electrical theme were made. But of equal vitality to the Constructivist enterprise is the centrality of building, and building via architectural models and kinetic rhythms, via altered perceptions of real time and the use of scientific paradigms of measurement

and experiment to create new visual experiences. There is, for example, Gabo's plan to alter the shape of Berlin through lighting in his proposed "Light Fest" (1929). (Paris underwent a metamorphosis similar to the one Gabo had planned for Berlin with the heroic luminism of the *International Exposition of Art and Technology in Modern Life* in 1937; what was then vanguard is now nostalgic—the city of light becomes the city of the byte ***[Fig. 1]***). Malevich amplified Gabo's program for desolidifying mass and object through the use of light with the more metaphysical proposition posed by *White on White* (1918), which was described by his colleague Moholy-Nagy as "the ideal screen for light and shadow effects which reflect the surrounding world in painting. The manual picture is suppressed by the painterly possibilities of light projection."[13] This pictorial rejection of representation in favor of the foregrounding of light is not unlike many contemporary uses of the video monitor as a luminous "space." Malevich attempted to make an invisible property (light) visible, but artworks that do not clearly and obviously address the question of discernible advance are passed over by Popper.

Marcel Duchamp and the Dadaists reacted to the very blindness Popper embodies in their attack on what was fast becoming "modernism" in art—Fauvism, Cubism, and Futurism—by critiquing the cult of the forward and positive. Duchamp's "works"—the ready-mades, the pre-Op sculptural image-producers such as *Rotary Demisphere (Precision Optics),* 1925—made up the concrete side of Dada's interrogation of the ethic of the modern. The other and less apparent side of a Duchampian aesthetic is its treatment of movement. As Octavio Paz has observed, "Right from the start Duchamp set up a vertigo of delay in opposition to the vertigo of acceleration. . . . Duchamp's pictures are . . . the reverse of speed."[14] Duchamp's delays allowed movement to be analyzed, to become duration (Virilio's "last commodity"). Not least of Duchamp's influence on video, especially Paikian video, is his challenge to rapid time and absorption; interest in stasis, repetition, and *response*—rather than the object—provides the basis for much video work, which is why the work is often charged with being unendurably dull.

Dadaism, unlike Constructivism, concerned itself with the effects of electricity rather than with its use in objects. Surrealists such as Ernst, Matta, and Wols, Popper contends, used electric iconography to similarly subjective ends: to explore electricity's relationship to the psyche, the unconscious, dreams, and sexuality. The essential invisibility of electricity aligned itself with the unseen functions of the subliminal. Popper treats Surrealism with one sentence in his survey, and completely ignores Surrealist film, which might have provided him with his best examples. This is one of many omissions in Popper's history that disservice ironical or "irrational" responses to modernist reason. For example, Popper never discusses Cubism, which gave the Futurists their deconstructed picture planes and challenges to the imaging of form, space, and motion (not to mention its influence on Duchamp's *Nude Descending a Staircase* and Constructivist treatments of structure). Nor is any mention of Vorticism made. Under the guidance of Wyndham Lewis from approximately 1913 to 1920, the Vorticists drew pointed affinities between love of the machine and the war making that coincided directly with their period of production. In fact, Popper does not mention World War I in detail, except to refer vaguely to "realist reactions" in the twenties and thirties.[15]

Popper's 1900–45 segment frames the mighty "isms" of the early part of the century. The "Medium Domination" period of 1945–70 is far more resistant to such periodizing; Popper characterizes it simply as a time when "art was increasingly becoming a social phenomenon" (p. 32). He separates works into "neo-Constructivist" and "neo-Dadaist" trends, borrowing from a conventional separation of "rational" and "irrational" developments. Various collectives arose internationally: some borrowed from Constructivist-kinetic impulses (Gutai in Japan and Grav in Paris, for instance) and some from Dadaist positions (Fluxes, Zero, and Nul are examples).

The 1945–70 period also witnessed both increased attention to environmental art and inventions such as the laser and hologram. And this is the time of what Popper calls "early electronic plastic expressions" (the work of Paik, Wolf Vostell, Nicolas Schoffer, Piotr Kowalski, Tsai, among others), which prefigure video in their shift from strictly mechanical uses of light and movement to the incorporation of electronics, which will dominate the seventies and eighties. We hear nothing substantive about Pop art, Minimalism, Conceptual art, or even the light show spectacles of the sixties—again the omissions are those which fit uneasily into a dominant modernist stance. Even worse is the fact that Popper entirely neglects the birth of television in the fifties. This particular invention is, of course, of enormous significance both for the entry of electronic images into the home (a populist presence preceded only by the light bulb and radio) and for the later development of video, which defined itself (at least at first) in strong opposition to the television medium.

Special Studies: Electra Expansion

To take Popper's compressed and slanted history as indicative of the catalogue's presentation as a whole would be misleading, so it is worth looking briefly at a few of the eleven essays in the "Special Studies" section of *Electra.* The juxtaposition of the selections by Jacques Rigaud and Françoise Balibar unintentionally (one assumes) suggests an underlying division among the essayists: several will consider electricity's socioeconomic and political functions (keeping one eye trained on the art world), but most want to delimit the subject to detailed technical explanations. Rigaud claims an ideal fusion of art practice and corporate patronage in his "Art and Industry: A New Relationship"—not surprising in light of *Electra*'s sponsorship. The possibility of pressure from supporting industries who have vested interests in making their products look good goes unmentioned.[16] It is up to Balibar to point to the problem of power, *literal* power, when she describes electricity as always, invisibly, *in* something. Never is it just a thing "in itself." Further, it is a uniquely marketable medium. Thomas Edison, who rose from isolated inventor to president of his own corporation, General Electric, offers a case history of "the triumph of science, electricity and . . . Free Trade." There is a "flaw" in his tale of pioneering inventionism, warns Balibar: "Nothing could now stop the irresistible rise of American companies and the entire world would come under their sway. Chile in 1973 offers a good example."[17]

Edison's bulb has come to stand for ingenuity incarnate (the Idea flashing over the head of a just-stricken thinker in comic strips) as well as a mythic "light that will shine on all." Electricity connotes an ideal of free transit. Pierre Gaudibert disturbs *Electra*'s unimpeded flow of positivism and echoes Balibar when he observes in a round-table discussion (titled "Technology and the Respect for Diversity") that "There is at once an imperialist and therefore terrorist superiority imposed by colonialism, the neocolonialism of multinational companies and a seduction by the Western way of life." Refreshing as this sentiment is among the myopic positions of *Electra,* neither Gaudibert nor his discussants expand on the problem of technological production as an instrument in the oppression of the third world at the hands of the corporate West. Instead they daw-

dle over questions of magic and fantasy; one participant goes so far as to ask: "Can we imagine in Africa or elsewhere that with modern techniques and electronics there could be *real creative activities* which go beyond adaptation and *simple tinkering*?"[18] (emphasis added). One could indeed imagine such a "miracle"—or better yet, discuss present in-the-field uses of video by Nicaraguan Sandinistas and civilians to document everyday events and the texture of a culture constantly under the threat of effacement.[19]

The panel debate has glimmers of promise, but winds up operating under myths of primitivist, third-world creativity. More sensitive is Gladys Fabre's up-to-the-minute essay on the importance of technology to popular culture (especially music), "The Overloaded Culture." Our culture is "overloaded" because, Fabre says, technological developments have infested our "dream-producing" industries (music, film, fashion); the Surrealist recognition of affinities between electricity and the unconscious is trenchant as leisure activity is increasingly dominated by electronic modes of pleasure. Circuitry infuses the realm of relaxation as much as it does the spheres of work and industry.

Several of the participants in Gaudibert's panel realize the leveling effects of a world-wide technoscape (a Venturiesque perception of Las Vegas becoming Times Square becoming Tokyo), but Fabre gives this erasure of architectural difference far greater attention. She also does Popper one better by elucidating the decades of technology's progressive dominance. She tells of tripsters' fascination with electrokinesis and the spectacular light show in the sixties, of their delight in experience in excess. Pop art under the sway of Andy Warhol (the man who once claimed to want to *be* a machine) pushed distanced cool to its limits. In the seventies, experiments with "fixation, atonality, repetition, emptiness and silence" tempered the extremes of the preceding decade (a historical relationship not unlike that of Dadaist revisions of early modernist trends). This absorption with stasis, Fabre notes, has been replaced today by an obsession with speed. The widespread revival of painting under the aegis of neo-Expressionism (which idealizes rapid creation) has urged the commodifying tendencies of the international art market to new extremes. Fabre speaks of the difficulty "for people in general and young people in particular, to agree to postpone satisfaction of our human rights, of our pleasure, even of our secret wishes as we did in the past under the name of the sacrosanct rationality principle." The pervasiveness of high tech in our leisure-time activities (the growth of the home entertainment center) and in the products offered (music videos and scifi films) suggests that we are now appeasing the "irrational" need for pleasure through technological means. Out of a love of speed and a desire for immediate gratification come tools that operate instantaneously and give us rapidly assimilated images.

Fabre is sensitive to economic factors in art and art's relationship to popular culture, but eventually she, too, succumbs to the overall utopian drift of *Electra*. She is attached to the third-world voice of reggae filtered through the most advanced apparatuses, and is even willing to venture into the South Bronx and hip-hop culture (the latter a perfect example of a vanguard art practice co-opted by the mass media through film, music video, and advertisements and quickly doomed to looking and sounding "dated"). But her enthusiasm leads her to declare: "Electronics and media will no longer be agents of standardization and centralized power structures, besottedly inducing passive reception of their message through mindless attention and an automatic brainwash, but rather the efficient spokesman of human diversity."[20] Advanced media can indeed disperse information across continents and, when accessible, encourage a wide-ranging participation—and, as in the hip-hop case, can oversell information until it becomes no more than white noise. This ideal of dispersal—essentially a *post-modern* ideal of access and diffusion, which is (ironically) transmitted through media of the most sophisticated modernity—can be interrogated more rigorously. In his *In the Shadow of the Silent Majorities,* Jean Baudrillard stresses that we exist within a surplus of tele-information that is, at bottom, meaningless. The postmodern goal of pluralism, where a position of meaning is ideally open to anyone, finds a convincing critique in Baudrillard's contention that multiple voices, when sounded through technological media, are essentially silent.[21] Thus, even Fabre's admirable effort to inject a postmodernist orientation into *Electra* falls short in the final analysis—owing mainly to the specific nature of technology.

Electra, Video, and the Postmodern

Video embraces this very paradox of pluralist qualities with the modernist trope and tools of technological progress. The institutions of the art world have never known quite what to do with video, and it's no wonder. After twenty years video still lacks a solidly independent criticism,[22] a situation largely attributable to its dearth of qualities required for art historical appraisal (objecthood, agreed-upon "value," and a past). Video is a medium in suspension, bridging modernist and postmodernist conditions with a variety of pluralist features. The "death of modernism" in the sixties and seventies coincided with the birth of video, and the medium became a repository for the modernist need of "the new." Because it is inextricably bound to technological changes, video carries the priority of "advancement" with the search for better equipment, better resolution, better duplication.

Yet video is also postmodern, especially in its effects. Mona da Vinci has argued in her "Video: The Art of Observable Dreams" that because video exists in a viewing system of projection, and involves the viewer in a closed, definite space but an open-ended period of time, the "electronic space" creates a situation where "Escape into the object or the other is rendered impossible in physical terms. . . . The medium communicates on a mental and psychological level rather than by a direct physical interaction."[23] When audiences complain of the boredom of watching art video, they are often articulating an unwillingness or inability to shift their perceptual habits, to "let go" and enter a tape's temporal and imagistic structure. Because it reveals itself through time, a video work alters the notion of a synthesized, unified appraisal of a singular object. And the medium itself defies conventional ideas of objecthood—a key postmodernist qualification. Video is dispersible, making it so annoying to those who want to sequester art as original and private. It is reproducible on a mass, relatively inexpensive scale. It plays in more than one place. It can cheapen the cost of admission.

Video's interdisciplinary development lends it another postmodern feature. Many artists came to the field out of others—painting, sculpture, filmmaking, writing, music, broadcast television, engineering, mathematics—and brought to its initial growth a breadth of interests inherently opposed to the hermeticism and separatism often associated with modernism, and often pointed to as a factor in its demise. Video is an accommodating form. It allows for personal-performance art: the artist in the studio turns on a camera and performs to his or her own image broadcast simultaneously on a monitor—video is, as Rosalind Krauss has observed, a narcissistic form.[24] Video artists can invoke minimal prototypes of blank space and abstraction, using the monitor as a screen of light (taking us back to Malevich), or, conversely,

employ decorative elements (recalling a vehement reaction to Minimalism, pattern painting). The video is a canvas, then, but a canvas that moves and can even be used sculpturally (Les Levine's *Contact,* 1969, and numerous Paik installations come to mind). Video can go in the streets to provide an alternative to mainstream presentation of events, political and otherwise ("guerilla" video). It can even engender a dream of widely distributed culture: the dream of a cable TV revolution, which died a resounding death several years ago.

Many artists entered video, out of other fields or afresh, for precisely this potential for a variety of practices and a possibility of play. At a panel discussion in November 1984, several video artists who were active in the early days of the medium (Vito Acconci, Peter Campus, Joan Jonas, Beryl Korot, and William Wegman) cited experimentation and quick results as reasons to try video. All but Jonas gave it up around 1978 when a great wave of technological advances occurred.[25] The initial appeal came from plugging in a machine and getting an image. Wegman likened his attraction to a fondness for Polaroids: push a button and get ready-made art. This pre-high-tech affinity for the instantaneous occurred when speed of production had seemingly little consequence outside the workspace. The tapes shown in *Electra* pick up just where this idiosyncratic period of play left off; since all date post-1980, there is no representation of early stages of video work. This makes sense in light of the fact that the panelists complained vehemently that the equipment they had used with a sense of spontaneity had become a demand rather than a freedom. Increasingly computers were combined with simple camera-monitor set-ups. The tools encroached on image making as they increasingly dictated the scope of the work.

The crucial point about *Electra* is that this complication of the medium is completely masked by an all-consuming support for progress in tools. Dominique Belloir makes the situation perfectly clear:

> Thanks to the extreme versatility of video diffusion equipment (a simple screen and video-tape recorder to go with it), it is possible to watch video tapes in the most unlikely places, comfortably installed in the back seat of a 4 Horse Power (intimist drive-in devised one day at Bourges by Liegon-Ligeonnet), underwater at the bottom of a swimming pool or else lying on the sand of a beach in Normandy where the Allies landed forty years ago.... For these last two projects one need only wait until the spring of '84—"1984," incidentally, did George Orwell not predict omnipresent television sets, spy televisions transmitting the picture of Big Brother everywhere? To contradict these pessimistic forecasts, though, the 25 screens installed for the Art Video section will have no surveillance role. They are there to convey the phenomenon of electricity.[26]

We may not be able to gaze on the specter of Big Brother (yet), but surely he can gaze on us: surveillance techniques using the most advanced equipment are subtle and to be found everywhere. You probably don't *know* if Big Brother is watching.

Video tapes do play in limos and swimming pools, but 1984 happened also to be the year when the "small screen" took on an added home-entertainment dimension. The number of American households owning VCRs—home video cassette players—jumped nearly 100 percent from 1983 to 1984. Twenty percent of all TV-owning households now have one.[27] Right from the start television has been charged with fracturing its audience and causing isolation (the vision of each American family cloistered in its living room slavishly workshiping The Machine, zombie eyed), but the VCR revolution has created an industrialization of the home industry, expanding our sense of the word "video." The either/or dichotomy of television-video art no longer suffices. Films (narratives) are selected by VCR owners, rented or purchased, and played on video. Filmgoing is no longer exclusively an "in-the-dark" proposition, and video's oppositional presentation of a viewing situation that could be entered or departed at will has been weakened (though museum screenings of tapes have long fostered devotion in the dark and a lack of viewer mobility).

Genres blend: subscribers pay to see advertisements set to music in the form of MTV (and we remember Rigaud's call for art and commerce to join hands). Music video usurps every jolting camera and cutting strategy invented by a French New Wave director, making the abrupt segue a narcotic rather than a shock in a vulgarization of editing. Colorization, long the domain of video art, is a standard aesthetic ploy on MTV. Film directors such as William Friedkin, Brian DePalma, and even, it is rumored, Federico Fellini direct videos. A reciprocal appropriation occurs between technology and the art world. Artists take what technology can give to satisfy formal or expressive needs; commercialized industry takes up avant-garde practices to sell products.

Belloir's extraordinary shortsightedness expresses perfectly the overall trouble with *Electra*'s *hommage* to the alliance of science and art. She is right to comment on the "extreme versatility of video diffusion equipment" (an essentially postmodernist feature but one treated reductively, much like Popper's promised symptomatic history), but there can be no "phenomenon of electricity alone." As Balibar reminded us, electricity exists as a seemingly immaterial and yet material force; Heidegger warned that the danger of technology is to consider it a thing-in-itself. The "phenomenon of electricity" is merely a construct unifying a series of tendencies. The mythical "Electra" is just that, a myth, albeit one that ties together nicely the supposition that rationality (the progress of science and modernity) equals "light."[28]

Digitalization Simulation, and the Knowing Image

> Science and technology came from man's questions about Nature. It was from this revealed knowledge about the riddle of Nature that technology was produced. Since then—for about a century now—the riddle of science and technology has tended by its development to replace the riddle of Nature. And there are no scientists or technicians to answer this riddle. More than that, there aren't any *because they refuse,* because the scientists and engineers, claiming to know, don't allow anyone to inquire into the nature of technology. And so the riddle of technology becomes more fearsome, or at least as fearsome, as the riddle of Nature.
>
> —Virilio, p. 34

In the digital imagery section of *Electra,* which includes digitalization in video and still images, Edmond Couchot adopts a supremely pragmatic voice, even when describing processes that have, as we shall see, unsettling possibilities. Couchot demystifies various computer functions in layman's—or lay art historian's—terms:

> The three-dimensional synthesis image is an almost infinite potential of images, never visible in their entirety. It no longer represents the object on a projection plane, it simulates it in its totality. It corresponds to a way of perceiving and considering space—a topology—which no longer has anything to do with traditional optic techniques (photo, cinema, television). Digital three-dimensional synthesis introduced a new visual order into

our culture, that of simulation. The synthetic three-dimensional image with its extra dimension, as compared to the two-dimensional, gives artists the opportunity to discover and experiment with a radically different visual world.[29]

What is this "radically different visual world," and what does such a difference mean? From the digital section, all we know of synthesis is that it is nonrepresentational. Virtually every work shown (and again, this is a matter of the catalogue presentation and perhaps not the actual *Electra* show) investigates patterning, flat pictorial space, bright color relationships, and balancing acts of form. But, as has been the case throughout the *Electra* exhibition, this is far from the whole story of the medium under discussion.

There's only one jarring work in this mania for abstraction. It is by Jane Veeder, who, thanks to the alphabetic arrangement of illustrated works and the location of the digital section at the end, gets shoved to the back of the catalogue. Veeder's *Montana* (1982) ***(Fig. 2)*** is one of just two image-text works in both the video and digital sections (the other is Roy Ascott's *La Plissure du Texte,* a planetary fairy tale dedicated to Roland Barthes, to be produced by a computerized teleconferencing network—an attempt at cross-continental narrative). *Montana,* which seems as out-of-place for its punning Americana as for its political references, features a digital buffalo roaming in front of triangular mountain ranges composed of what look like color bars. Grafted onto one of the peaks is a form in the shape of North America, out of which explode jagged lines (electricity? radiation?) that spill down both sides of the picture onto two giant globes perched atop more triangular shapes. Under this implosion of U.S. mythmaking and power is a slogan: "Good luck electronically visualizing your futures!" The potent disturbance—which is all the more resonant when one recalls Virilio's account of an intensified present and its connection to the absolute instantaneousness of nuclear war (the "orgasmic whump")—is dramatic, set against the dry abstractions and endless formal experiments that surround it.

Veeder's vision is of a self-destructive nation-state bent on eradicating its own natural environment and that of others. Her commentary suits a time when "natural" reality can be shaped and transformed at will by the latest technological tools, tools that aim to create fictions of verisimilitude. In a recent *New York Times Magazine* article, Fred Ritchin describes how digitalization can render falsehoods:

Fig. 2 Jane Veeder, from *Montana,* 1982.

> It is now possible not only to make almost seamless composites of existing photographs and to alter images in such a way that the changes may not be detected, but—using mathematics instead of a camera—it is possible to create images that are nearly photographic in their realism. With the last technique, it might even be possible at some future date to "recreate" long-dead movie stars to appear in new movies.

In considering digitalization-in-the-round, as it were, Ritchin gives equal treatment to relatively harmless uses (science-fiction films, for instance, which make no bones about being fantasies) and more dangerous ones. Synthetic images may encourage direct, representational lies. Ritchin quotes from an article by the computer consultant John D. Goodell:

> Consider what a powerful weapon "bogus" but convincing images could be in the hands of the K.G.B., the C.I.A., the secret police or terrorists. These images could be used for international blackmail or to create confusion and chaos, with "news" announcements about impending disasters or nuclear attacks delivered by a synthetic Dan Rather or Ronald Reagan.[30]

Technology is absolutely a tool of power: power as a commercial and marketable substance; power as the capacity to watch (surveillance); and now power to lie at will. It may seem antiquated and alarmist to adapt this "War of the Worlds"-ish forecast of doom, but it is a long-standing fact that the logical processes and rational methods of technology can provoke hysteria, as in Orson Welles's legendary broadcast. The irrational seems a condition of our response to these tools, which might usurp our autonomy and are programmed to the possibility of war. Goodell is speaking of something more foreboding than an apocalyptic scare delivered orally and unseen through the radio wires. Images generated by electronic means can be manipulated to lend a veneer of veracity to any number of ends. It's easy to lie, and it's easy to believe what we see. Digital artworks share the devices used by the media and thus it is hard for them to play dumb. Baudrillard has confronted the situation where truth in images (long a suspect notion) is in jeopardy: "There are no longer media in the literal sense of the term (I am talking above all about the electronic mass media)—that is to say, a power mediating between one reality and another, between one state of the real and another—neither in content nor in form." The poles fall atop one another and we are left with a residue, what Baudrillard terms an "undecipherable truth" (pp. 102–3). One example of this condition can be located in Nancy Burson's composites of world leaders, which critique fibbing representation while using the very methods that deceive us. Her *Warhead* (1984) ***(Fig. 3)*** is an unnerving computer portrait that blends the features of Reagan and Chernenko according to the percentage of warheads held by their respective countries (54% United States, 46% U.S.S.R.); the result is a vision of indistinguishable "guides"

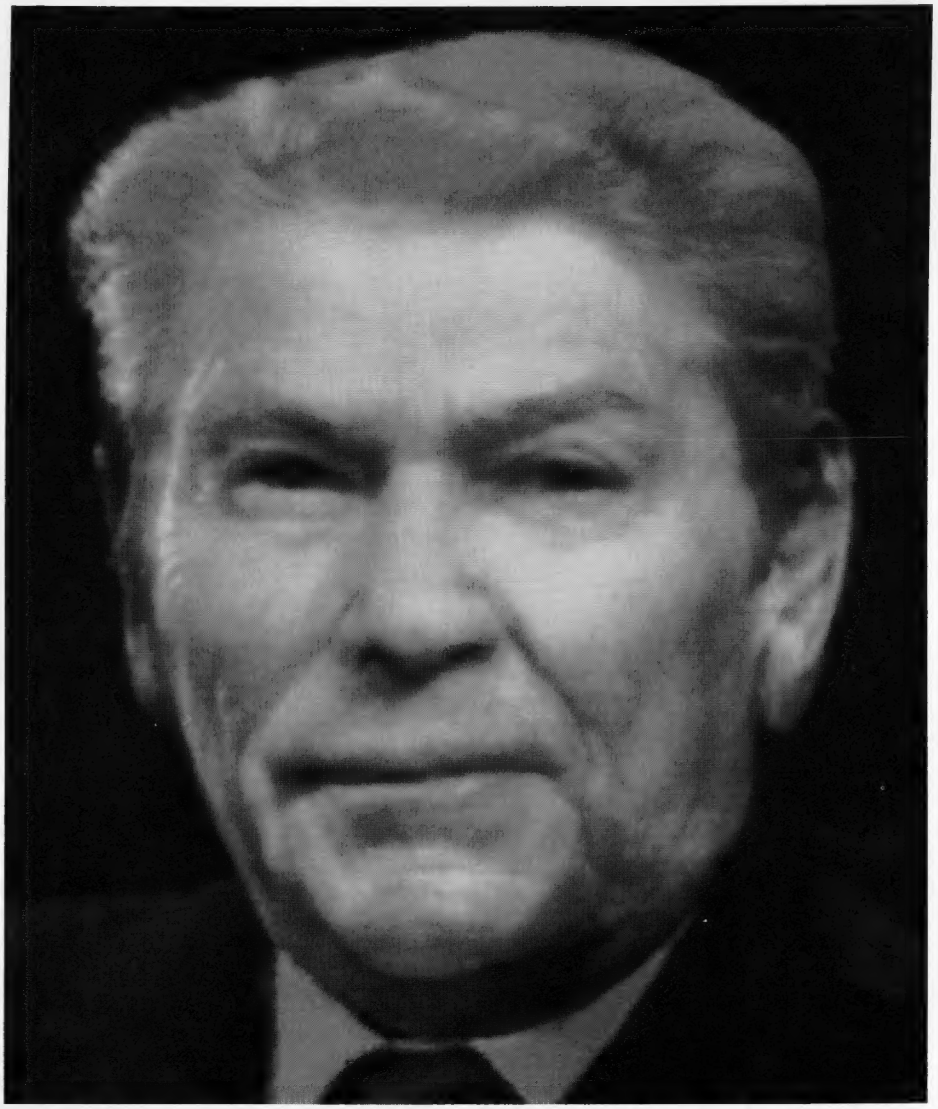

Fig. 3 Nancy Burson, with Richard Carling and David Kramlich, from *Warhead,* 1984.

who are supposed to "lead" us in a world where techno-annihilation looms as a constant.

The possibility for digital synthesis (both in video and in static images) is the strongest case against the protechnological myopia of the *Electra* catalogue. Its artworks are exempted from investigation into the nature of their mediums by the protective cloak of a scientific (rational, linear) perspective; with this isolation, *Electra* propagates a modernist progress without consequence. An interpretation acknowledging reactions, inconsistencies, ambivalence—a postmodern approach—is avoided by the *Electra* curators and critics to favor a seamless logic of "the new." A discourse other than the modernist one of the foreword is required for artworks generated by technological means.

> The ape monster looks down at these territorial holdings (as or the world): acres after acres of clear fields, streams running, a few trees: Nature. I can't tell the difference between trees and tree-shadow or tree-image. Nature is either a reflection, or else nothing. I'm a reflection or else I'm nothing.
>
> —Kathy Acker[31]

Notes

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1 Paul Virilio/Sylvere Lotringer, *Pure War,* trans. Mark Polizotti, New York, Semiotext(e), Foreign Agents Series, 1983, p. 32. All further citations appear in the text.

2 K. G. Pontus Hulten, foreword to *The Machine as Seen at the End of the Mechanical Age,* New York, Museum of Modern Art, 1969, p. ix.

3 See: Craig Owens, "Representation, Appropriation, and Power," *Art in America* (May 1982). Owens differentiates between what he calls a "discipline (art history) which believes representation to be a disinterested and therefore politically neutral activity, and a body of criticism (poststructuralism) which demonstrates that it is an inextricable part of the social processes of domination and control." Douglas Davis makes a similar charge against what he calls a "Pop" attitude towards media that is "proudly objective and nonjudgmental" and "markedly indifferent to content and to personality" ("The Decline and Fall of Pop: Reflections in Media Theory," *Art Culture: Essays on the Post-Modern,* intro. Irving Sandler, New York, 1977, p. 87). Both Owens and Davis discuss how content tends to be suppressed under the guise of "purely formal" interests.

4 Exhibitions devoted to the theme of light and movement in art in this period include: 1965, *Art and Movement,* Royal Scottish Academy, Edinburgh, *Art Turned On,* Institute of Contemporary Art, Boston, *Kinetic and Optic Art Today,* Albright-Knox Gallery, Buffalo; 1966, *Kunst-Licht-Kunst,* Stedelijk Van Abbe Museum, Eindhoven, *Computer-Graphic.* Howard Wise Gallery, New York, *Art and Machine,* Sigma 1, Bordeaux; 1967, *Lumière et Mouvement,* Musée d'Art Moderne de la Ville de Paris, *Lights in Orbit,* Howard Wise Gallery, New York; 1968, *Cinématisme, Spectacle, Environnement,* Maison de la Culture, Grenoble, *The Machine as Seen at the End of the Mechanical Age,* Museum of Modern Art, New York, *Kinetic Environment,* Olympic Games, Mexico City; 1969, *International Exhibition of Kinetic Art,* Amos Andersonin Taidemuseo, Helsinki, *TV as a Creative Medium,* Howard Wise Gallery, New York, *Vision and Television,* Rose Art Museum, Brandeis University, Waltham, Mass.; 1970, *Kinetics,* Hayward Gallery, London; 1971, *Art Constructif et Cinématisme,* Galerie Guenegaud, Paris; 1972, *La Fête Électrique,* Plateau Beaubourg, Paris; 1973, *Electric Art from Europe,* The Electric Gallery, Toronto; 1974, *Art Video Confrontation/74,* Musée d'Art Moderne de la Ville de Paris.

Douglas Davis (cited n. 3), p. 93, has attacked the spectacle mode of presentation for its "all-at-once" reductive presentation of media within a visual field of "competing monitors." From all appearances, the *Electra* show seems wide open to this charge, especially in the video presentation, which screened tapes on a 25-monitor stack.

5 For a detailed discussion of changes in perceptions of time, space, and their effect on the arts and sciences in early modernism, see: Stephen Kern, *The Culture of Time and Space: 1880–1918,* Cambridge, Mass., 1983. His observation of the importance of World Standard Time (inaugurated in 1884) makes a strong case for the advent of "instantaneousness": "In the cultural sphere no unifying concept for the new sense of the past or future could rival the coherence and the popularity of the concept of simultaneity," p. 314.

6 See Thomas Powell's review of Paul Bracken's *The Command and Control of Nuclear Forces,* New Haven, 1984, in *The New York Review of Books,* January 17, 1985.

7 Martin Heidegger, "The Question Concerning Technology," *Basic Writings,* ed. David Farrell Krell, New York, 1977, pp. 283–317. All further citations appear in the text. Heidegger

writes of "The fact that now, whenever we try to point to modern technology as the revealing that challenges, the words 'setting upon', 'ordering', 'standing-reserve' obtrude and accumulate in a dry, monotonous and therefore oppressive way," p. 299. To exist with technology requires an attitude of "catching sight of what comes to presence in technology, instead of merely gaping at the technological," p. 314.

8 Frank Popper, introduction, *Electra,* Paris, Les Amis du Musée d'Art Moderne de la Ville de Paris, 1983, p. 75. All further citations appear in the text. The English translations cited here and in all following *Electra* citations appear in the catalogue.

9 Popular culture has been quick to pick up on an alarmist attitude towards technology and narrate it. *The China Syndrome* (1979) and particularly *WarGames* (1983) typify a genre of nuclear scare movies that depict man's impotence when faced with circuitry gone beserk.

10 Program notes to the video section of "Electra-Video," in *Electra* (cited n. 8), pp. 373, 376.

11 Virilio (cited n. 1, p. 84) speaks of rapid transportation as generating its own specific light. Inverting Futurist affirmation, he states:

> All speed illuminates. The low speed of Victor Hugo's train, the relatively high speeds of the Concorde or the very high speeds of televised projection are electronic or thermodynamic light—thermodynamic light in the case of the train, light of the reactor in the Concorde and electronic light in television. When one is on a jet or on a train, one sees the world in a different light, so to speak. It's not a problem of light source, but of relation to the world. The world flown over is a world produced by speed. It's a representation. We come back to Schopenhauer's pessimism, the world as representation, but this time as representation of speed.

12 See: Joshua C. Taylor, "The Futurist Goal, The Futurist Achievement," *Major European Art Movements: 1900–1945,* ed. Patricia E. Kaplan and Susan Manso, New York, 1977, pp. 164–92.

13 Willoughby Sharp, "Luminism and Kineticism," *Minimal Art,* ed. Gregory Battcock, New York, 1968, p. 323. Sharp provides a thorough pre-video overview of luminist and kineticist trends.

14 Octavio Paz, "Marcel Duchamp, Or, The Castle of Purity," *Major European Art Movements* (cited n. 12), pp. 354–55.

15 For a study of the return to figuration and representation from abstraction in painting between the wars, see: Benjamin H.D. Buchloh, "Figures of Authority, Ciphers of Regression," *October,* 16 (Spring 1981).

16 *Electra* (cited n. 8), pp. 116–22. The inhibitions of sponsorship seem connected to *Electra*'s positivism and Popper's conciliatory stance.

17 "Light and Electricity: Electrons and Photons," ibid., pp. 128–29.

18 "Technology and the Respect for Diversity," ibid., pp. 244–55.

19 See: DeeDee Halleck, "Notes on Nicaraguan Media; Video Libre o Morir," *The Independent Film and Video Monthly* (November 1984), pp. 12–17.

20 *Electra* (cited n.8), pp. 206–28

21 Baudrillard writes:

> Whence that bombardment of signs which the mass is thought to re-echo. It is interrogated by converging waves, by light or linguistic stimuli, exactly like distant stars or nuclei bombarded with particles in a cyclotron. Information is exactly this. Not a mode of constant emulsion, of input-output and of controlled chain reactions, exactly as in atomic simulation chambers. We must free the "energy" of the mass in order to fabricate the "social."

In the Shadow of the Silent Majorities . . . Or the End of the Social, trans. Paul Foss, Paul Patton, and John Johnston, New York, Semiotext(e), Foreign Agents Series, 1983, pp. 24–25. All further citations appear in the text.

22 David Antin has described two stabs at a video discourse as follows: one is "a kind of enthusiastic welcoming prose peppered with fragments of communication theory and McLuhanesque media talk," the other "a rather nervous attempt to locate the 'unique properties of the medium,' " also known as "the formalist rap" (to which one could add "the modernist tact"). "Video: The Distinctive Features of the Medium," *Video Art,* Philadelphia, Institute of Contemporary Art, 1975, p. 57.

23 Mona da Vinci, "Video: The Art of Observable Dreams," *New Artists Video,* ed. Gregory Battcock, New York, 1978, p. 18.

24 Rosalind Krauss, "Video: The Aesthetics of Narcissism," *New Artists Video* (cited n. 23), pp. 43–64.

25 This panel was sponsored by Anthology Film Archives and held at Millenium Film Workshop in New York City on November 29, 1984. The moderator for the panel, titled "Reel to Reel: The Early 70s," was Davidson Gigliotti.

26 "Electra-Video," *Electra* (cited n. 8), p. 366.

27 Kenneth Turam, "The Art of Revolution," *Rolling Stone* (December 20, 1984–January 3, 1985), p. 75.

28 Jürgen Habermas has situated a break in the historical meaning of modernism in the Enlightenment, when "the modern" came to mean less a countering relationship to the past than an ideal of futurity. The connotation of a rational "light" became focused on the forward as "the idea of being 'modern' by looking back to the ancients changed with the belief, inspired by modern science, in the infinite advance toward social and moral betterment" ("Modernity—An Incomplete Project," *The Anti-Aesthetic: Essays on Postmodern Culture,* ed. Hal Foster, Port Townsend, Wash., 1983, pp. 3–15).

29 "The Digital Image," *Electra* (cited n. 8), p. 389.

30 Fred Ritchin, "Photography's New Bag of Tricks," *New York Times Magazine* (November 4, 1984), pp. 42–50; 54; 56.

31 Kathy Acker, "Scenes of World War III," *Wild History,* ed. Richard Prince, New York, 1985, p. 113.

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